

## Title (en)

SENSOR ELEMENT, MEASURING DEVICE, METHOD FOR MANUFACTURING SENSOR ELEMENT, ELECTRONIC CIRCUIT ELEMENT, AND QUANTUM INFORMATION ELEMENT

## Title (de)

SENSORELEMENT, MESSVORRICHTUNG, VERFAHREN ZUR HERSTELLUNG DES SENSORELEMENTS, ELEMENT EINER ELEKTRONISCHEN SCHALTUNG UND QUANTENINFORMATIONSELEMENT

## Title (fr)

ÉLÉMENT DE CAPTEUR, DISPOSITIF DE MESURE, PROCÉDÉ DE FABRICATION D'ÉLÉMENT DE CAPTEUR, ÉLÉMENT DE CIRCUIT ÉLECTRONIQUE ET ÉLÉMENT D'INFORMATIONS QUANTIQUES

## Publication

**EP 3761049 A4 20210428 (EN)**

## Application

**EP 19760350 A 20190228**

## Priority

- JP 2018037624 A 20180302
- JP 2019007808 W 20190228

## Abstract (en)

[origin: EP3761049A1] The present invention provides a sensor element including a diamond in which nitrogen-vacancy centers in a diamond crystal structure stabilize in a negative charge state. By ensuring that the diamond of the sensor element is n-type phosphorus-doped and contains nitrogen-vacancy centers in the crystal structure, the probability that nitrogen-vacancy centers in the diamond lattice are in a neutral state decreases, and the nitrogen-vacancy centers stabilize in a negative charge state.

## IPC 8 full level

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## Citation (search report)

- [XYI] US 2014037932 A1 20140206 - TWITCHEN DANIEL JAMES [US], et al
- [Y] US 2016334474 A1 20161117 - HATANO MUTSUOKO [JP], et al
- See references of WO 2019168097A1

## Designated contracting state (EPC)

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## DOCDB simple family (application)

**EP 19760350 A 20190228**; CN 201980015033 A 20190228; JP 2018037624 A 20180302; JP 2019007808 W 20190228; US 201916977342 A 20190228